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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/904,541 | 07/16/2001 | Reuel W. Nash | 1930.0090001 | 2299 |

26111 7590 01/14/2004

STERNE, KESSLER, GOLDSTEIN & FOX PLLC
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

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| EXAMINER |
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SINGH, DALIP K

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| ART UNIT | PAPER NUMBER |
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2676

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/904,541

Applicant(s)

NASH ET AL.

Examiner

Dalip K Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's amendment dated October 6, 2003 in response to PTO Office Action dated May 7, 2003. The amendments to claim(s) 1, 8-13 and 18-20 have been noted and entered in the record, and applicant's remarks have been carefully considered resulting in the action as set forth herein below.
2. Claim objections pertaining to "said phase code sequence" has been withdrawn as a result as well as rejections under 35 U.S.C. § 112 for claims 12, 13, 19 and 20.
3. Applicant's arguments filed October 6, 2003 have been fully considered but they are not persuasive.
4. Regarding applicant's argument with respect to claim(s) 1, 11 and 18 that "amended claim now reading "phase module sequence corresponding to said one or more phases..." the previous rejections have been rendered moot", Lindholm et al. reference **discloses** a graphics pipeline system and thus anticipating sequences that involve either VAB or transform module or the lighting module and processing pertaining to such modules. Mode bits as described by Lindholm pertain to the microcode coming into play to implement a sequence.
5. Regarding applicant's argument with respect to "Lindholm's modules being fixed in hardware", Lindholm reference **discloses** mode bits that indicative of the status of a plurality of modes of process operations; and mode bits may be received from a software driver (col. 16, lines 41-67) similarly recited in claims(s) 1, 11 and 18 in evaluated mode command.
6. Regarding applicant's argument with respect to "Lindholm not suggesting a storage medium to select a phase module to match said mode and loading phase module sequence into a microcode instruction memory", Lindholm **discloses** reception of mode bits and pluralities of addresses being identified in memory based on mode bits (col. 16, lines 41-67).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,198,488 B1 to Lindholm et al.

a. Regarding claims 1, 11 and 18, Lindholm et al. **discloses** managing microcode (...micro-code organization of transform module 52...Figure 5) comprising the steps of evaluating a mode command (...a buffer 1202 adapted for receiving the mode bits from VAB 50 that are indicative of the status of a plurality of modes of process operations...col. 16, lines 34-40) to implement or change a mode, said mode having one or more phases (...mode bits...are indicative of the status of a plurality of modes of process operations...col. 16, lines 34-40) ; and identifying a phase module sequence corresponding to said one or more phases in response to said evaluated mode command, wherein said phase module sequence includes at least one phase module containing microcode to implement a corresponding phase (...a sequencing module 1206 is coupled between memory 412 and a control vector module 1205...for identifying a plurality of addresses...based on a control vector derived from mode bits 202...col. 16, lines 41-51).

b. Regarding claim 2, Lindholm et al. **discloses** querying a storage medium to select a phase module to match said mode (...the sequencing module 1206 is further adapted for accessing the addresses in memory 412 for retrieving the code segments that might be used to operate transform module 52...col. 16, lines 48-51).

c. Regarding claims 3-5, 12, 13, 17, 19, 20 and 23, Lindholm et al. **discloses** identifying a plurality of addresses in memory 412 based on a control vector derived

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from mode bits 202 which is similar to recited claim limitation "loading said phase module sequence into a microcode instruction/data memory and execution to implement said mode" (col. 16, lines 41-51).

d. Regarding claims 6, 14 and 21, Lindholm et al. **discloses** sending a result from said executing said phase module sequence (mode bits operations results) to a processor for pixel processing or additional microcode processing (Figure 4, col. 10; lines 15-48).

e. Regarding claim 7, Lindholm et al. **discloses** microcode processing being done prior to said executing said phase module sequence (Figure 4, col. 10, lines 28-39).

f. Regarding claims 8-10, 15, 16 and 22, Lindholm et al. **discloses** three dimensional graphics, animation scene and video game rendering happening prior to executing said phase module sequence (...a graphics pipeline system is provided for graphics processing...col. 3, lines 2-5;...In use lighting module 54 controls the buffer bypass pathway 1501...employs the same mode bits 202 as transform module 52...Figure 15, col. 20, lines 48-67).

Conclusion

9. Applicant's arguments filed October 6, 2003 have been fully considered but they are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Dalip K. Singh** whose telephone number is **(703) 305-3895**. The examiner can normally be reached on Mon-Thu (8:00AM-6:30PM) Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella**, can be reached at **(703) 308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office at telephone number : (703)-306-0377.

dks

January 10, 2004



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600